## ABSTRACT

Improved color image display accuracy can be achieved across a computer network by obtaining information characterizing the color response of display devices associated with a client residing on the computer network, and using the information to modify color images delivered to the client. The information may include a gamma estimate and a gray balance estimate. In one embodiment, the gamma estimate is limited to only the green color channel, without reference to the gammas for the red and blue channels. Then, the gray balance of the display device is estimated using the green-limited gamma estimate as a starting point, in combination with a number of red-blue shifts away from the gamma estimate. In particular, in the gray balance process, the green intensity value indicative of the gamma estimate is used to generate a set of gray patches that exhibit +/- (plus/minus) differences or "shifts" in red and blue away from the green value. The gray patch that appears to most closely blend with a dithered green background is selected as the gray balance patch. The information can be obtained, for example, by guiding the client through a color profiling process that profiles the color response of the display device. For example, such guidance may take the form of a series of instructional web pages that are delivered to the client.